



# UNITED STATES PATENT AND TRADEMARK OFFICE

A

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/633,268

08/01/2003

Robert B. Wirtz

A91774

3356

30996

7590

03/14/2006

ROBERT W. BECKER & ASSOCIATES  
707 HIGHWAY 66 EAST  
SUITE B  
TIJERAS, NM 87059

EXAMINER

SAN MARTIN, EDGARDO

ART UNIT

PAPER NUMBER

2837

DATE MAILED: 03/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/633,268

**Applicant(s)**

WIRTZ, ROBERT B.

**Examiner**

Edgardo San Martin

**Art Unit**

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 December 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1 – 3, 8, 9 and 17 are rejected under 35 U.S.C. 102(b) as being anticipated by Weiss et al. (US 4,263,981).

With respect to claim 1, Weiss et al. teach an exhaust muffler for a motor comprising a muffler housing that encloses at least one damping chamber (Fig.1, Item 16) and has an inlet (Fig.1, Item 13) for exhaust gases from the motor and an outlet (Fig.1, Item 25), wherein a resonator chamber (Fig.1, Item 21) is provided in the housing and is closed off so as to be substantially fluid-tight relative to the at least one damping chamber, wherein a resonance pipe (Fig.1, Item 22) that conveys exhaust gases is guided through the resonator chamber, and wherein an acoustic link (Fig.1, Items 23) is provided between the resonance pipe and the resonator chamber, and wherein there is essentially no flow of fluid from the resonance pipe into the resonator chamber (Figs.1 and 2; Col.3, Line 4 – Col.5, Line 67).

With respect to claims 2, 3, 8, 9 and 17, the Examiner considers that Weiss et al. teach the limitations described in the claims (Figs.1 and 2; Col.3, Line 4 – Col.5, Line 67).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which the subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 4 – 7, 10 – 13 and 19 – 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss et al. (US 4,263,981).

With respect to claims 4 – 6 and 21 – 23, Weiss et al. teach the limitations discussed in a previous rejection, but fail to disclose wherein a total surface area of the orifices of the resonance pipe ranges from 200 to 500 mm<sup>2</sup>, or wherein the orifices have a diameter ranging from 1 to 4 mm, or wherein the resonance pipe is provided with 100 to 150 of the orifices.

The Examiner considers that it would have been an obvious matter of design choice to provide a certain total surface area or a certain diameter or a certain amount of the orifices, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or working ranges involves only routine skill in the art. In re Aller, 105 USPQ 233; in addition, it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980).

With respect to claim 7, the Examiner considers that it would have been an obvious matter of design choice to extend the resonance pipe in a curved manner in the resonator chamber because it would not depart from the scope of the Weiss et al.

Art Unit: 2837

invention, and the Applicant does not disclose the criticality or any other advantage over the prior art for such limitation.

With respect to claims 10 – 12, the Examiner takes Official Notice that it is well known in the art of muffler building to provide a muffler with two half shells, in order to facilitate the assembly of mufflers that include internal parts or elements, such as catalysts, pipes or baffles.

With respect to claim 13, the Examiner have given little patentable weight to the limitations described in the claim, since the presence of process limitations on product claims, which product does not otherwise patentably distinguish over prior art, cannot impart patentability to the product. In re Stephens 145 USPQ 656 (CCPA 1965).

With respect to claims 19 and 20, the Examiner takes Official Notice that it is well known in the art of acoustics to provide a muffler with multiple chambers in order to increase the performance of the muffler by improving the expansion of the exhaust gas; furthermore, it is well known in the art to employ a catalyst member in combination with a muffler chamber, in order to provide a cleaner exhaust gas.

3. Claims 14 – 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Weiss et al. (US 4,263,981) in view of Trudell (US 4,116,303).

With respect to claim 14, Weiss et al. teach the limitations discussed in a previous rejection, but fail to disclose wherein an end of the resonance pipe that faces at least one damping chamber has a spacing relative to the resonator chamber.

Nevertheless, Trudell teaches an exhaust muffler comprising an end of a pipe (Fig.1, Item 22) that faces at least one damping chamber (Fig.1, Item 32) has a spacing (Fig.1) relative to another chamber (Fig.1, Item 34).

It would have been obvious to a person with ordinary skill in the art at the time of the invention was made to provide the Trudell pipe spacing to the Weiss et al. resonance pipe because the spacing relative to the resonator chamber would provide an acoustical tuning characteristic that could be controlled in order to eliminate undesirable resonances.

With respect to claim 15, Trudell teaches wherein the spacing is at least 30% of a length of the muffler housing (Col.2, Lines 63+).

With respect to claim 16, Trudell teaches wherein a portion of the resonance pipe that projects out of the resonator chamber into the at least one damping chamber extends approximately parallel to a longitudinal central axis extending approximately in a direction of a length of the exhaust muffler (Fig.1).

With respect to claim 18, Trudell teaches wherein a chamber being packed with glass fibers (Fig.1, Item 38), especially glass wool (Col.3, Lines 53 – 55).

### ***Response to Arguments***

4. Applicant's arguments with respect to claims have been considered but are moot in view of the new ground(s) of rejection. The Examiner considers that the new grounds of rejection necessitated by the amendment filed on December 29, 2005 teach the limitations described in the claims as discussed above.

5. The examiner notes that the statements presented in the previous Office Action regarding the well known status of several elements were not challenged or traversed. This is taken as an admission of the Applicant that the elements are well known. *In re Chevenard*, 139 F.2d 71, 60 USPQ 239 (CCPA 1943).

### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

**Contact Information**

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Edgardo San Martín whose telephone number is (571) 272-2074. The examiner can normally be reached on 8:00AM - 5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paula Bradley can be reached on (571) 272-2800 ext.33. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Edgardo San Martín  
Primary Examiner  
Art Unit 2837  
Class 181  
March 8, 2006